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Revised Recommendations and Cost Estimates

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Presentation Topics

- Recap of Comparison to Other Adequacy Studies and Reconciliation Process
- Revised Recommendations
- Implementing Recommendations to Develop Cost Estimates
- Statewide Cost Projections, FY 2019-20

Recap: Comparison to National Adequacy Study Recommendations

- As noted previously, Wyoming's current funding model is generally comparable to recommendations in other adequacy studies nationally
 - Comparable to the recommendations of the other EB studies
 - Comparable to all other studies for class size, elective teachers, professional development, technology, and assessments, instructional materials
 - Higher, on average, in the areas of special education support, gifted and talented (per pupil amounts only)
 - Lower, on average, in the areas of at-risk funding, pupil support, ELL, and instructional coaches/Instructional facilitators

Recap: Reconciling Results to Develop Final Recommendations

- The three adequacy approaches (2017 professional judgment, 2017 successful schools and 2015 evidence-based) each provide valid, cost-based estimates on the resources needed to provide the basket of goods and services.
 - As such, data points from each approach were used to triangulate a single reconciled set of resources.
 - Recommendations based upon providing resources in an effective and efficient manner within the range of data from the three approaches.
 - Addressing areas where the current model was not aligned with national adequacy recommendations.
 - Stakeholder feedback was considered for any revisions.

Revised Recommendations

- Revised recommendations include:
 - Funding at 18:1 in elementary grades (including 6th grade in a K-6), and 23:1 in secondary grades.
 - *Prior recommendation: 16:1 K-3 and a 23:1 4-12 class size recommendation (for an average class size of 18.3 in K-5, and 19:1 in K-6)*
 - *Reasons for revision: consistency in elementary schools, negative stakeholder feedback regarding larger class sizes particularly in elementary grades. Note, while stakeholder feedback was not supportive of change to class size, (1) the study team believes this change is better aligned with current practice, instead of a true increase; (2) feedback was supportive of increasing salaries at a higher rate, and at this time the study would not suggest doing both.*
 - Fund Instructional Facilitators/Coaches at a ratio of 1.0 FTE per 30 core teachers.
 - *Prior recommendation: 1.0 FTE per 15 teachers*
 - *Reasons for revision: stakeholder feedback in this area suggested opinions on the utility of these positions was mixed and it was an area that could be resourced at a lower level.*
 - Fund instructional/supervisory aides at a ratio of 1.0 FTE per 350 students in elementary and secondary schools
 - *Prior recommendation: 1.0 FTE per 150 elementary students and 1.0 FTE per 350 secondary students*
 - *Reasons for revision: for consistency across school types, to shift resources to allow for lower elementary class ratio given lack of research on value of instructional aides, and to avoid any double counting of supervisory aides that were included in transportation reimbursements*

Revised Recommendations

- Revised recommendations continued:
 - Fund Tutors/Interventionists at 1.0 FTE per 300 elementary ADM and 1.0 FTE per 400 secondary ADM
 - *Prior recommendation: 1.0 FTE per 300 elementary or middle school ADM and 1.0 FTE per 400 high school ADM*
 - *Reasons for revision: adjusted to make recommendation consistent for secondary grades*
 - Fund assistant principals at 1.0 FTE per 500 ADM, starting at 500 ADM, in both elementary and secondary schools
 - *Prior recommendation: 1.0 FTE per 350 secondary students*
 - *Reasons for revision: stakeholder feedback that assistant principals were needed in larger elementary schools, to create equity across school types*

Revised Recommendations

- Revised recommendations continued:
 - Fund instructional materials at current \$190 per ADM (*at the base level, adjusted by size*)
 - *Prior recommendation: \$250 per elementary ADM, \$312 per middle ADM, and \$472 per high school ADM*
 - *Reason for revision: WDE/LSO feedback on school-level data collection methods, revised recommended amounts to be based upon district-level data from CREWR report.*
 - Continue to use current approach and funding levels for student activities (\$24 per elementary ADM regardless of size, \$202-\$783 per middle school ADM and \$595-\$2,017 per high school ADM based upon school size).
 - *Prior recommendation: \$60 per elementary ADM, \$300 per middle school ADM, \$720 per high school ADM.*
 - *Reason for revision: WDE/LSO feedback on school-level data collection methods, overall approach is consistent since it is adjusted by size, but more conservative at its base level*

Revised Recommendations

- Revised recommendations continued:
 - Continue to use current district personnel and misc. costs funding approach, applying average salaries
 - *Prior recommendation: implement PJ staffing and cost recommendations, applying average salaries*
 - *Reason for revision: cost estimates were higher using initial approach, strong stakeholder feedback throughout process that administration funding was already too high and should not be increased.*

Implementing Recommendations to Create Cost Estimates

- Recommendations are used as a means of determining the adequate level of resources needed and are not a prescriptive model for implementation.
 - The study team encourages flexibility for schools and districts to determine how best to employ resources to serve their students by the state continuing to provide resources through a block grant.
 - Further, recommendations represent the base, or floor, amount needed – not in total, but on a per student basis – and these resources are adjusted as school size decreases to ensure equity of opportunity.

Recap of Recommendations

Personnel (student-to-FTE ratios unless otherwise noted)	Elementary School, 300 students	Secondary School, 1,000 students
Core Teachers	18	23
Elective Teachers	20% of core teachers	33% of core teachers
Instructional Facilitators	20	20
Tutors/Interventionists	300	400
Librarian/ Media Specialists (up to 1.0 FTE)	300	300
Instructional Aides	350	350
Certified Student Support Staff	200	200
Nurses (up to 1.0 FTE)	750	750
Principals (total FTE)	1.0	1.0
Assistant Principals (total FTE based upon 500:1 starting at 500 Elementary or Secondary ADM)		2.0
Secretaries (total FTE)	1.0	1.0
Clerks	200	200
IT Technicians	250	250
Substitute Cost per ADM	\$107	\$93

Note, substitute cost calculated as 15 days at a rate of \$106.84 per day for core and elective teacher. Result shown as per ADM figure.

Applying Prices to Create a Personnel Base Cost Figure

- Salaries:
 - For teachers, increased average model salary by \$3,900 to \$54,522.
 - Used statewide average model salaries for all other positions given the study team's analysis at this time was limited to teacher salaries.
 - Currently, the state adjusts the average salary in each position by education, experience, and district size. The study team instead applied average salaries to promote equity.
- Benefits:
 - Applied the state-calculated 21.1% benefit rate that includes: Social Security, Medicare, worker's compensation, unemployment insurance, and retirement contributions.
 - Applied the state-calculated amount of \$16,763.93 per FTE for FY 2019-20.

School-level Personnel Base Cost Figures

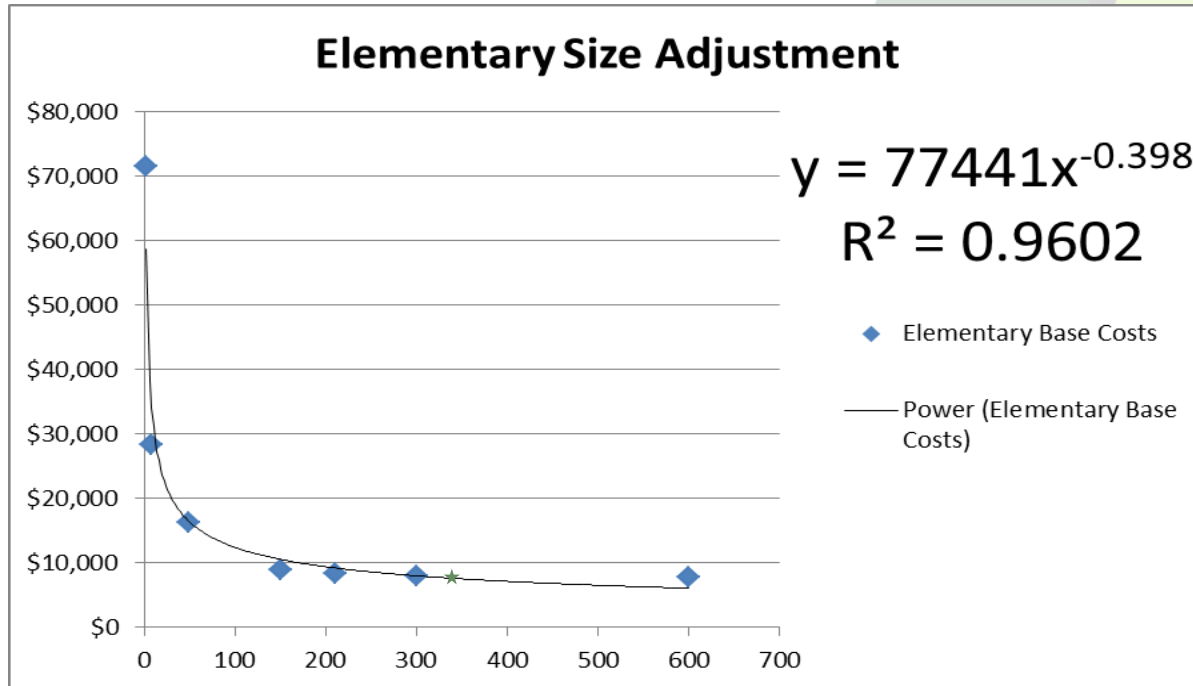
	Elementary	Secondary
Personnel salaries, including fringe benefits	\$6,368	\$5,383
Health care	\$1,693	\$1,433
Total per student	\$8,060	\$6,816

- Figures above are the unadjusted (by size or RCA) school-level personnel base costs.
 - *Does not include: non-personnel instructional costs, student activities, district resources, special needs resources, or other reimbursements.*

Developing Size Adjustments to be Applied to Base Cost Figures

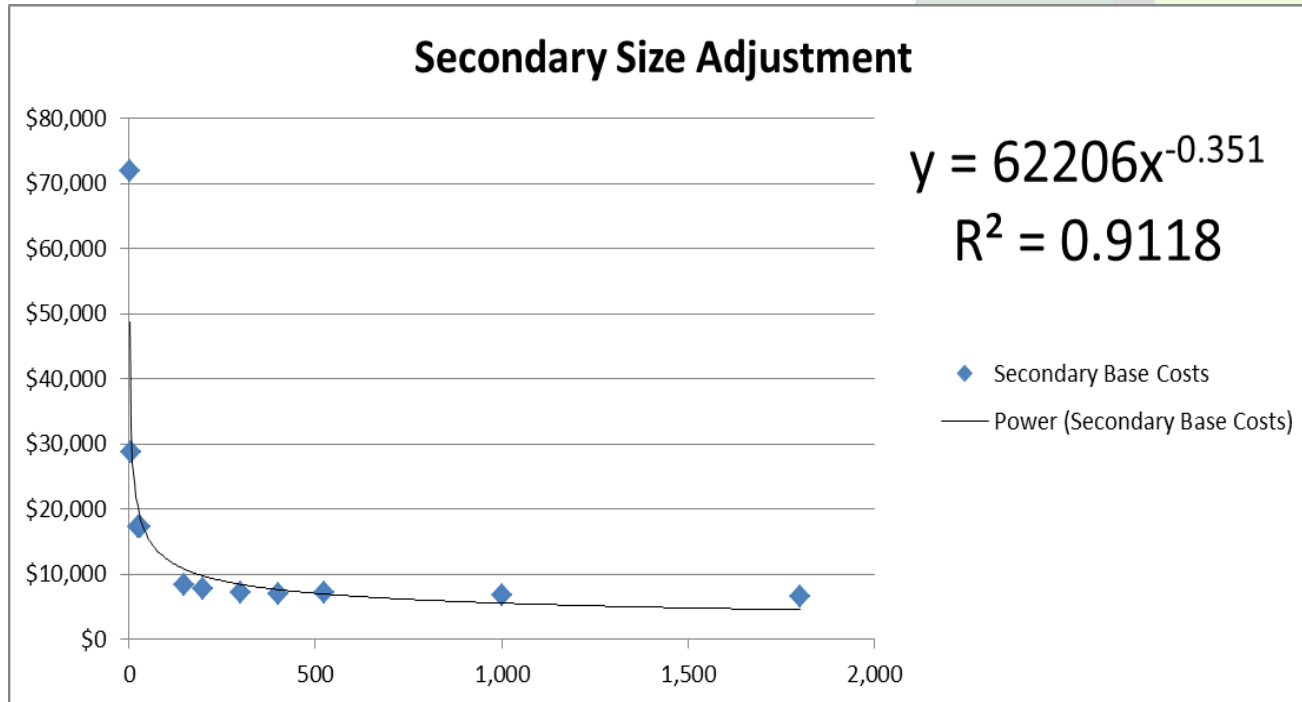
- To ensure equity of opportunity, the study team also developed elementary and secondary size adjustments to apply to the base costs.
 - The current Funding Model makes adjustments within personnel categories to address these economies of scale.
 - The study team instead developed size adjustment formulas to equitably apply adjustments and avoid any funding “cliffs.”
- To create each size adjustment, the study team implemented the staffing recommendations at each of the different representative school size points from PJ process as well as additional minimum and maximum points.
 - Many of the staffing resources were recommended consistent regardless of size (such as student support and clerical staff ratios)
 - Some resources either had floors or ceilings (such as to providing up to a 1.0 FTE for principals, nurses, librarians), or were recommended by PJ panels to be implemented at different ratios (such as smaller student-to-teacher ratios and higher elective-to-core teacher ratios) as school size decreased.

Elementary Size Adjustment



- Each data point represents the resources needed as a per student amount at each representative school size. (X= ADM)
- A best-fit equation is generated to represent this relationship of resource and size.
 - The closer an R^2 value is to 1.0 the better the fit.

Secondary Size Adjustment



- Each data point represents the resources needed as a per student amount at each representative school size. (X= ADM)
- A best-fit equation is generated to represent this relationship of resource and size.
 - The closer an R^2 value is to 1.0 the better the fit.

Size Adjustment Factors

- Taking the equations shown in each chart and dividing by the base cost amount produces an elementary and a secondary size adjustment factor.
 - *Floor set at 0.97 based upon relationship between cost at lowest data point and base.*

School Size	Elementary Size Adjustment Factor	Elementary per Student	Secondary Size Adjustment Factor	Secondary per Student
2	7.29	\$58,771	7.16	\$48,772
5	5.06	\$40,811	5.19	\$35,358
10	3.84	\$30,972	4.07	\$27,722
25	2.67	\$21,508	2.95	\$20,098
50	2.03	\$16,322	2.31	\$15,758
100	1.54	\$12,387	1.81	\$12,355
200	1.17	\$9,401	1.42	\$9,687
300	0.99	\$8,000	1.23	\$8,402
400	0.97	\$7,818	1.11	\$7,595
500	0.97	\$7,818	1.03	\$7,023
600	0.97	\$7,818	0.97	\$6,611
1,000 and above	0.97	\$7,818	0.97	\$6,611

Applying to Wyoming Schools

- For each elementary and secondary school the following calculation is made to determine its base cost figure:

$$\begin{aligned} &\text{Personnel Base Cost (Benefits and Salaries) x Size Adjustment x RCA} \\ &+ \\ &\text{Health Care Base Cost Amount x Size Adjustment} \\ &= \\ &\text{School's Personnel Base Cost} \end{aligned}$$

- A school's unique personnel base cost is then multiplied by its total ADM to produce a total personnel cost amount.
 - ADM adjustment for declining enrollment is based upon district-level determination of which is greater: three-year rolling average or prior year ADM. That determination is then applied to school-level ADM.

Special Needs Students

- At-Risk and ELL
 - Weight of 0.30 applied to the personnel base cost (unadjusted for size, but adjusted by the RCA), then multiplied by a school's at-risk or ELL count.
- CTE
 - Middle schools are provided \$25 per middle school ADM for CTE supplies and materials.
 - High schools are provided \$100 per high school ADM for CTE supplies and materials, and an additional 1.0 FTE CTE teacher above what is resourced as part of elective teachers.
 - Supplies and materials amounts are subject to ECA and personnel is subject to RCA.
- Gifted and Talented
 - Schools are provided \$40 per ADM for supplies and materials.
- Special Education
 - 100% reimbursable outside of block grant.

Non-Personnel Instructional Costs

Instructional Non-Personnel Costs	
Supplies and Materials per ADM (to be adjusted based upon district size)	\$190
Assessment per ADM	\$25
Technology Hardware per ADM	\$250
Professional Development per ADM	\$125

- The study team also developed size adjustment to be applied to the supplies and materials amount using the same approach described for the personnel size adjustment.

District and M&O Resources

- District resources calculated using current Funding Model personnel (but applying average salaries) and misc. cost allocations
- The study team used the state's current approach to funding maintenance and operations, with the following adjustments:
 - Allowances based on teacher FTE were based upon an assumed staffing level from the base staffing ratio recommendations.
 - Utilities were funded based upon a three-year average of actual expenditures. This three-year average should be fixed until the next recalibration.
 - Average salaries for each position (custodian, maintenance and groundskeepers) were used.
 - Allowable square footage for buildings built after 2002 through the state's program was adjusted to actual less enhancements.

Transportation and Other Reimbursements

- While the study team recommends moving to a density formula over time, for estimation purposes, transportation funding is modeled using the state's revised approach to funding on a three-year average of actual district expenditures from 2014-15, 2015-16, and 2016-17.
 - The state's current estimates for bus purchasing and reimbursement and isolation and mileage/maintenance payments are also used.
- Finally, the study team's cost modeling also includes the state's estimates for other allowable reimbursements, including tuition and teacher extra compensation.

Statewide Cost Projections, FY 2019-20

(shown in millions, unless otherwise noted)	
School Level Instructional Resources	\$983.9
Central Office Resources	\$87.1
Routine Maintenance & Operations Resources	\$109.3
Utilities	\$37.2
Reimbursements (including Transportation and Special Education)	\$341.7
First Year Charter School Adjustment	\$0
Foundation Program Block Grant Guarantee	\$1,559
Foundation Program Block Grant Guarantee Per ADM (92,369 ADM projected)	\$16,878

Detail on School Level Instructional Resources

School Level Instructional Resources (shown in millions)	\$983.9
Base Personnel and Salaries	\$621.7
Health Care	\$161.6
At-Risk	\$87.8
ELL	\$8.6
CTE	\$8.7
Gifted and Talented	\$3.7
Instructional Non-Personnel Costs	\$61.6
Student Activities	\$30.0

Updated Equity Analysis

- Equity measures how equitably educational resources are allocated among districts/students
- There are several ways to think about equity:
 - **Horizontal equity**: equal resources across all districts or students
 - **Vertical equity**: resources vary with district/student need
 - **Fiscal neutrality**: the relationship between local wealth and education resources

Equity Report Summary from November Select Committee Meeting

- Overall, Wyoming's funding model appears to be equitable by most measures
- It is particularly strong with regard to minimizing the relationship between local wealth/fiscal capacity and available educational resources
- There is more variability in the allocation of resources across districts than the literature would suggest is ideal, but the wide range of district and school sizes appears to be a significant driver of this, though not necessarily the only cause

Updated Equity Analysis: Recommended and Current Funding Models

- Most valid comparison is between the revenues generated by the recommended and current funding models.
 - Recommended model is for FY 2019-20, Current is for FY 2017-18 (most recent available)
- Uses two comparison points: base resources and total resources excluding transportation
 - Base resources: school level + central office + M&O + utilities – school resources for special needs
 - Total resources: base resources + special needs + allowable reimbursements for special education, teacher extra compensation and tuition

Updated Equity Analysis: Horizontal Equity and Fiscal Neutrality

- Measures of horizontal equity and fiscal neutrality were statistically similar.
 - Slight variations likely due to wider RCA range and increased differentiation by size.
 - Horizontal equity
 - When examining by quartile, districts in the 3rd and 4th quartiles (larger than 1,866 ADM), where size adjustment has little impact, meet or do better than standard of 0.10 or less – under both recommended and current models.
 - Fiscal equity
 - Both recommended and current model are well under the standard of 0.50 or less, indicating little to no relationship between local fiscal capacity and educational resources.

Updated Equity Analysis: Vertical Equity

- **Coefficient of Variation**

	Recommended Model Base	Recommended Model Total	Current Model Base	Current Model Total
Coefficient of Variation – per WADM	0.336	0.261	0.322	0.248

- Like the measures using ADM, all measures exceed standard of 0.10 or less, indicating higher levels of variability than ideally desired. However, further analysis indicates that the range of district and school sizes impacts this measure.

Vertical Equity

- Coefficient of Variation by Size Quartile**

	Recommended Model Base	Recommended Model Total	Current Model Base	Current Model Total
Q1 Revenues/WADM	0.314	0.223	0.308	0.220
Q2 Revenues/WADM	0.153	0.124	0.134	0.113
Q3 Revenues/WADM	0.104	0.088	0.075	0.060
Q4 Revenues/WADM	0.061	0.053	0.074	0.061

- Like the ADM analysis, the measures essentially meet the standard of 0.10 or less in quartiles 3 and 4.
- Measures are very similar for recommended and current models, although Q4 recommended measures indicate slightly higher level of vertical equity when the obscuring effect of size is minimized.

Conclusions

- Overall projected cost difference in FY 2019-20 of less than 5 percent from current Funding Model Suggests that Wyoming is largely funding education at an adequate level overall
- Key resource differences in recommended model from the current Funding Model are primarily due to:
 - Increased funding for at-risk and ELL students (to better align with national adequacy recommendations and improve vertical equity)
 - Expanded CTE opportunities, a key theme from stakeholder feedback
 - Adjusting resources to account for school size and to better support equity of opportunity
- If the state adopts the recommended model, it should consider a hold harmless for districts that would receive funding less than current level.
- If state does not adopt recommended model, it should still consider providing additional support for at-risk, ELL, CTE, and small schools, as well as addressing remaining funding cliffs.
 - State should also consider how health care is funded since it's a large cost component.



Questions?



Public Comment?